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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,182

08/30/2006

Hiroshi Araki

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10/20/2009

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

COLON SANTANA, EDUARDO

ART UNIT

PAPER NUMBER

2837

NOTIFICATION DATE

DELIVERY MODE

10/20/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/591,182	<b>Applicant(s)</b> ARAKI, HIROSHI	
	<b>Examiner</b> Eduardo Colon-Santana	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)                |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application      |
| Paper No(s)/Mail Date <u>10/6/2009</u> .   | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

**DETAILED ACTION**

1. Applicant's amendments filed on 6/05/2009 have been received and entered in the case.
2. Applicant's amendments and/or responses with respect to claim 12 have been fully considered, but are not persuasive.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 10/6/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art of figures 9-11

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corresponding to Japanese Patent No. 11-246137 in view of Ishimoto et al. JP Patent No. 11021036 A.

Referring to claim 12, applicant's admitted prior art (AAPA) of figure 10 (Corresponding to figure 12 of JP. 11-246137) disclose an elevator control apparatus having a winch (5) for driving a car (8) to move upward and downward; an electric motor (3); an inverter (17) that controls the motor (3) and a ECU (22), all together constituting a drive control device. Figure 10 of AAPA although clearly having a traffic control device integrated does not explicitly show that it is divided from the drive control device. Nonetheless, Ishimoto et al. discloses a control device for an elevator, having a first (CP1) and second (CP2) control panel being divided and stored in different locations. Ishimoto et al. further describes that the first control panel (CP1) comprises a main circuit (i.e. drive control device) and the second control panel (CP2) comprises signal control devices other than the main circuit control (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention to divide the drive control device including the ECU from other control devices (i.e. traffic control) for the purpose/advantages of reducing the size and weight of the control device in addition to have the flexibility of relocating other controls for easy access for repair or regular maintenance. Moreover, one of ordinary skill in the art would recognize that constructing a formerly integral structure in various elements involves only routine skill in the art. See *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Referring to claim 13, Applicant's admitted prior art and Ishimoto et al. addresses the obvious limitations of claim 12 above. Figure 10 additionally depicts a hall call button (10) in the hall and undoubtedly discloses a car call button installed inside the elevator car (8), in which a traffic control would obviously response to.

5. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art and Ishimoto et al. in regards to claims 12 and 13 above, and further in view of Eiji Uchiumi JP. 2003-104634.

Referring to claims 14 and 15, Applicant's admitted prior art of figure 10 and Ishimoto et al. discloses the obvious limitations of claims 12 and 13 above, but does not explicitly describe that the drive control unit is installed in a hoistway for the car and the traffic control device is installed in a position accessible by an operator either in the hall, inside of a wall of the hall, in a wall in the hoistway or in the car. Nonetheless, Eiji discloses an elevator system (see figures 1, 2) which includes a drive control device (main circuit 15) is installed near the motor (4) in the hoistway and the control circuit (16) which would obviously include a traffic control is installed in the panel of a door (12) on the side of an elevator landing (10) which can be operated from the elevator landing (10) (see Abstract). Although Eiji do not explicitly describe that the control circuit (16) is inside the car or inside a wall of a hall, it would have been an obvious design choice to arranged both control devices independent from each other for the purpose of maximizing space on or

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near the hoistway in order to perform adjustment and maintenance in an effective and safely manner.

As to claim 16, Eiji discloses in claims 7 and 8 that the signal transmission arranged from the main circuit (15) and the control circuit (16) is using serial and optical communication.

1. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art and Ishimoto et al. with regards to claim 12 above and further in view of Yoshimura U.S. Patent No. 6,747,432.

Referring to claim 17, Applicant's admitted prior art of figure 10 and Ishimoto et al. addresses all the obvious limitations of claim 12 above, but does not explicitly describe that the drive control device is integrally constructed by resin molding. However, Yoshimura discloses a drive apparatus wherein the drive apparatus (21) together with a control IC (33) see figure 1 is constructed by resin molding. It would have been obvious to one of ordinary skill in the art at the time of the invention to use resin molding for the purpose of sealing and reducing the size of the drive control device, enabling it to be located in the vicinity of the motor simplifying the handling of wires.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art and Ishimoto et al and Yoshimura as applied to claim 17 above and further in view of Nakahama et al. JP 11313465 A.

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Referring to claim 18, Applicant's admitted prior art of figure 10, Ishimoto et al. and Yoshimura addresses all the obvious limitations of claim 17 above, but does not explicitly describe further having cooling fins that cool the electric motor and the inverter. Nonetheless, Nakahama discloses a motor control device in which radiation fins (5) are used for cooling the electric motor (1) and the control device (3) which includes an inverter unit (see figure 65 and pars. 0001-0003). It would have been obvious to one of ordinary skill to include metal fins as taught by Nakahama within Applicant's admitted prior art since they would cool the motor and the control device, permitting that the motor and the control device operate without instability, generally faster leading to higher performance.

2. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art and Ishimoto et al. with regards to claim 12 above and further in view of Yamamoto U.S. Patent Application No. 2003/0052544 A1.

Referring to claim 19, Applicant's admitted prior art of figure 10 and Ishimoto et al. addresses all the obvious limitations of claim 12 above, but does not explicitly describe that the inverter comprises a power conversion device being a matrix converter circuit type. However, Yamamoto et al. discloses a PWM cycloconverter (matrix converter circuit) see figures 8 and 9, item (80). It would have been obvious to one of ordinary skill in the art at the time of the invention to add a matrix converter circuit type as taught by Yamamoto within the teaching of Applicant's admitted prior art for the

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purpose/advantages that a matrix converter circuit would automatically halt operation of an elevator in the event of a power supply abnormality, since matrix converter are used for controlling the speed of the motor in a high power application such as elevator control.

3. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art and Ishimoto et al. with regards to claims 12 and 13 above, and further in view of Yoneda et al. JP Patent No. 2001158578 A.

Referring to claim 20, Applicant's admitted prior art of figure 10 and Ishimoto et al. addresses all the obvious limitations of claims 12 and 13 above, but does not explicitly describe that a traffic control device would includes a personal computer. Nonetheless, Yoneda et al. discloses a group supervisory control system for elevator, wherein claim 3, discloses the use of a personal computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a general purpose personal computer as taught by Yoneda within the teaching of Applicant's admitted prior art for the purpose/advantages of managing every aspect of the elevator operation and monitoring abnormalities when they occur to quickly and efficiently control elevator traffic movement.

7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art and Ishimoto et al. with regards to claims 12 and 13 above, and further in view of Nakagawa WO 01/46059 A1.



JP 4072342 which is a patent family of WO01/46059 was used for translation purposes.

Referring to claims 21 and 22, Applicant's admitted prior art of figure 10 and Ishimoto et al. addresses all the obvious limitations of claims 12 and 13 above, but does not explicitly describe having a plurality of drive control devices for controlling a plurality of cars. However, Nakagawa discloses a juxtaposed elevator system having a plurality of control devices integrally constructed individually (18a, 18b) for controlling a plurality of cars (2a, 2b) having individual main sheaves (12a, 12b) with individual rope wrapped around them and counter weight (3a, 3b) (see figure 1). Furthermore, Nakagawa discloses a single traffic control device (20) that controls the drive control devices (18a, 18b) to centrally control the plurality of cars.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a plurality of drive controllers being controlled by a single traffic control device for the purpose/advantages of increasing cross sectional area by minimizing space if more than one traffic control is installed; in addition to centrally manage from one point of access a plurality of elevator cars in case other elevator cars are less responsive due to high traffic volume.

#### ***Response to Arguments***

8. Applicant's arguments filed 6/05/2009 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection above.

**Conclusion**

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon-Santana whose telephone number is (571)272-2060. The examiner can normally be reached on Monday thru Friday 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-

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2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E.C.S/  
Patent Examiner  
Art Unit 2837

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837

October 7, 2009